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Indebtedness of Pacific Railroads.

SPEECH
OF
HON. WILLIAM M. STEWART,
OF NEVADA,
IN THE SENATE OF THE UNITED STATES,

Saturday, February 9, 1889,

On the bill (S. 3401) to amend an act entitled "An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the Government the use of the same for postal, military, and other purposes," approved July 1, 1862; also to amend an act approved July 2, 1864, and also an act approved May 7, 1878, both in amendment of said first-mentioned act; and to provide for a settlement of claims growing out of the issue of bonds to aid in the construction of certain of said railroads, and to secure to the United States the payment of all indebtedness of certain of the companies therein mentioned.

Mr. STEWART. I give notice that when the pending motion is disposed of I shall offer what I send to the desk to be read.

The PRESIDENT *pro tempore*. It will be read for information.

The Secretary read as follows:

Resolved, That Senate bill 3401, providing for funding the indebtedness of the Union Pacific Railroad Company, be, and it is hereby, recommitted to the Select Committee on Pacific Railroads, with instructions to report a bill which shall provide for the payment of the indebtedness to the United States of the several Pacific railroads for the construction of which bonds have been issued, by requiring sums of money equal to the indebtedness to the United States of the Union Pacific Railroad Company and its branches, and the Central Pacific Railroad Company, as the successor of the Central Pacific Railroad Company of California and the Western Pacific Railroad Company, to be expended by said railroad companies, respectively, in the construction of such improvements on the main lines of said railroads, including double tracks and tunnels to avoid high grades, and such new unincumbered branch railroads as Congress may approve, and in the construction of such hydraulic works for the purpose of irrigation as Congress may authorize, with such limitations upon freights and fares to be charged by said railroad companies on the roads so improved and constructed as will insure cheap transportation.

Mr. STEWART said:

Mr. PRESIDENT: The subject of the Pacific railroads has been so much discussed that I hardly feel authorized in occupying any considerable time; but inasmuch as all the propositions that have been made since the roads were constructed have had a tendency to impose additional burdens upon the people of my State and

upon the people inhabiting the adjoining States and Territories, I think it well to examine briefly

THE ORIGIN OF THESE ROADS

and their objects, for the purpose of showing the very unequal burdens that must be borne by the people living along the line of these roads if any of these bills pass as proposed. In other words, if the debt is exacted from these roads it must be collected from the local traffic along their lines.

There are several other continental roads that are completed so that none of the subsidized roads can make money, to pay this debt or to pay their other debts by through business. That will be reduced to the minimum by competition necessarily, and consequently the money has to be paid by local traffic. Is that just? Is it just under all the circumstances to burden those localities in the way proposed?

If my proposition could be carried out and this indebtedness used in the construction of branch roads and in improving the main lines, and where there is no business now to create business by appropriating a portion of the money for hydraulic works for irrigation, so that the people can occupy the lands, great good would be accomplished, not only to the people there, but to the whole United States.

THE CENTRAL PACIFIC RAILROAD

has now an enormous debt, the first mortgage bonds on 150 miles of it amounting to \$48,000 a mile; the balance of it through my State to \$32,000 a mile. This mortgage was authorized by Congress and is prior to the Government claim. The principal of Government claim is equal to the first mortgage, and to this must be added the unpaid interest, which is now about equal to the principal. When the Government enforces its lien with the accumulated interest it not only doubles the debt, but increases it at least three-fold, being an average debt on the whole line of something over \$100,000 a mile, which if exacted from the local trade must necessarily prevent the development of Nevada and the interior part of the country. If used for the development of the country, by the building of more branch railroads which shall be free from debt, with regulations by Congress requiring cheap freights, that country can be developed and will prosper, but not otherwise.

Now, in order that the burden of this enterprise may not fall upon a few and to show that it ought to be borne generally by the country, I want to remind the Senate of the circumstances under which this road was built, for it is claimed that as early as 1834 the question of building a Pacific railroad was agitated—long before the Mexican war.

It was the dream of many enterprising men, rather enthusiastic perhaps, that a railroad from

NEW YORK TO THE MOUTH OF THE COLUMBIA RIVER

would certainly be constructed. This was agitated from time to time. I need not go into the history of it in detail, but it finally attracted the attention of Congress. In 1853 the first act of Congress looking to the construction of a Pacific railroad was passed, as follows:

SEC. 10. *And be it further enacted*, That the Secretary of War be, and he is hereby, authorized, under the direction of the President of the United States, to employ such portion of the corps of topographical engineers, and such other persons as he may deem necessary, to make such explorations and surveys as he

may deem advisable, to ascertain the most practicable and economical route for a railroad from the Mississippi River to the Pacific Ocean, and that the sum of \$150,000, or so much thereof as may be necessary, be, and the same is hereby, appropriated out of any money in the Treasury not otherwise appropriated, to defray the expense of such explorations and surveys.

In the deficiency bill which passed the next year the following provision was contained :

For deficiencies for the railroad surveys between the Mississippi River and the Pacific Ocean, \$40,000.

In 1854 another appropriation was made in the following words :

For continuing the explorations and surveys to ascertain the best route for a railway to the Pacific, and for completing the reports of surveys already made, the sum of \$150,000.

Under these appropriations five routes were surveyed, explored, and reported upon. The reports contain much valuable information and show great diligence and research. They are contained in thirteen quarto volumes about the size of the CONGRESSIONAL RECORD, in which each route is reported upon, and all the peculiarities of climate, soil, topography, etc., are set forth. When the surveys were completed, on the 27th of February, 1855, Mr. Jefferson Davis, then Secretary of War, transmitted a report to Congress of these surveys, together with the estimates of the cost of the various routes. The northern route, about the forty-seventh parallel, was the first route which was agitated and discussed, it having been considered prior to the Mexican war, as I before observed, with a view of having a railroad constructed from New York City to the mouth of the Columbia River. It is the first route mentioned in the report.

After stating in general terms what the report contains Mr. Davis says that the estimated cost by the engineers was \$117,000,000. He then states that there must be added to that about 25 per cent. on account of additional cost over the construction of Eastern railroads between St. Paul, the starting point, and the Rocky Mountains, and that through the mountain regions it would be required to make an additional allowance of about 100 per cent. He therefore concludes that it would cost \$140,000,000 to construct the road without equipment, but with the equipment, rolling-stock, etc., it would cost \$10,000,000 more, making \$150,000,000.

THE CENTRAL ROUTE.

The central route is next considered, from Council Bluffs to Benicia. The engineers' estimate in the office, Mr. Davis said in this case, was \$116,000,000. He did not state how much additional allowance should be made on account of its being more difficult to construct than in the Eastern country, but observed that it was more difficult than the northern route, because they could only build from the two ends, while on the northern route transportation on the Missouri and Columbia Rivers would enable the construction of this route to be advanced from different points; consequently the required additional allowance would certainly be as great on the central as on the northern route. It is true the estimate was \$1,000,000 less than the northern route, but from the facts given by Mr. Davis the cost would certainly have been equal to the northern and perhaps greater; that is, \$150,000,000 for the construction and equipment of this road.

The next route was from a point on the Missouri River at the mouth of the Kansas River, so as to make a comparatively straight line from St. Louis to San

Francisco. The obstacles on this route were found so great that it was regarded as impracticable.

The next route was the thirty-fifth parallel. The estimate of the engineers of the cost of this route was \$169,000,000; but Mr. Davis says that must be a mistake; that they over estimated it; but he does not say to what extent, and, as subsequent events showed, he was correct in disagreeing with their estimates on that route.

The fifth route was on the thirty-second parallel, to start from a point on the Gulf in Texas, at a place called Fulton, and running from there to San Francisco. The estimated cost of this route was \$93,000,000 and the reasons are given at considerable length by Mr. Davis why it could be built cheaper on this route than any other. But it may be observed that if this route had been chosen it would not have answered the purpose of commerce. It would have been a long way in getting around from New York and it would not have served the purposes desired; besides Texas was then in rebellion, which fact precluded the consideration of a road on the thirty-second parallel at that time.

These estimates were made as preliminary to the granting of aid for the construction of a continental road, and many speeches were made on the subject during the period of these appropriations when it was regarded as a military necessity. The two political parties, following up the explorations which had been made by the Government, declared from time to time that it was both a

COMMERCIAL AND A POLITICAL NECESSITY

and should be aided by the Government. The Democratic convention that was held in 1860 in Charleston so declared; the convention that was held in Chicago, which nominated Mr. Lincoln, so declared; and some seventeen or eighteen of the States, if I recollect aright, passed like resolutions. It was the general sentiment that the road should be constructed by the Government, and these estimates of cost were made for that purpose.

While I am speaking of these estimates of the cost I will anticipate a little and refer to what the roads did actually cost. The Government bonds issued in aid of the construction of the main line amounted, in round numbers, to \$55,000,000. The roads were authorized to issue a like amount of first-mortgage bonds, making the aggregate cost from Council Bluffs to San Francisco of about \$110,000,000.

The road was, therefore, constructed for \$40,000,000 less than the estimate of the War Department, which, as I have shown, was \$150,000,000. I am of opinion that if the road had been constructed by the Government under the charge of the engineers of the Army, it would have cost the full amount that was estimated by the engineers. I have never known any work constructed by them to be done much more cheaply than the estimate. It generally exceeds the estimates. It must be remembered that this road was constructed not as anticipated, deliberately, when the engineers made their estimate, but it was constructed in a time of war, when prices were from two to three times as much as they were before the war, and when the discount on the paper money of the Government was about 30 per cent.

So it will be seen that the railroad was constructed more cheaply than was anticipated by Congress when the act was passed, because Congress had before it the estimates of its own officers as to the probable cost.

Much has been said about the extravagance of these appropriations, and we

have investigations into little things that are very annoying and expensive as to how these roads were constructed and how the various expenditures were made. It seems to me in dealing with the grand result we have no time to consider all these details. We should take the situation as presented in a larger sense and see whether the result obtained is all that could have been reasonably anticipated. I think it is.

Not only this, but the road was constructed

SEVEN YEARS BEFORE THE TIME

limited in the act for its completion. There were matters connected with its construction which added very much to the cost. But the reasons for constructing the road at that time, as given by every man who addressed either House of Congress, were of a national character. The principal reason assigned was the urgent military necessity to enable the Government to protect the Pacific States and retain them. All the national advantages that were pictured during that discussion, to which I will call attention, have been fully realized. There is no question about that. An empire has been created west of the Mississippi, and between that and the Pacific coast, which will furnish many important States of this Union, the development of which was advanced for a generation by this appropriation. No man at the time this was done was able to picture anything like we now see. The expectations have been more than realized. If it is said that the roads could be built cheaper now after the country is developed and when there is business, we shall not deny it; but we must take into consideration the time when the contract was made, the circumstances under which it was made, not only of the Government, but of the parties who undertook the work, in coming to a conclusion whether there has been an unreasonable expenditure of money. Certainly no more was spent than was authorized by Congress.

The fact that after the road was constructed the country commenced filling up was natural, both in California and at this end, and the road finally became a sufficient success to make the stock valuable, which nobody would take, to my certain knowledge, at the time the road was in process of construction. I say the unexpected success of the enterprise was such that the stock became of some value, and consequently those engaged in the enterprise made money. But this was not anticipated by anybody. On the contrary, the projectors were regarded as fanatics for undertaking such a hazardous scheme.

Without going into detail in regard to the situation of my constituents, I suggest that they are

NOT ABLE TO PAY THE ENORMOUS DEBT

of the Central Pacific Railroad. They are not able to pay this money back to the Government, and if this company is forced to do it it never can or will build branch lines. The result will be that we must continue to pay high freights and be taxed during the next fifty, sixty, or one hundred years, to pay for this great national war measure, which has added thousands of millions to the wealth of the nation and its taxable property and demonstrated the fact that a trans-continental road could be built, and induced others to engage in like enterprises. This and the other land-grant roads have caused the construction directly of about 20,000 miles of road, and indirectly, it is estimated, of as much more.

This expenditure of \$55,000,000 having been paid by the Government for this national object, and it having accumulated now to \$100,000,000 or more, it seems

to me that the use of this \$100,000,000 in building branch lines and constructing reservoirs and other hydraulic works for irrigation under such regulations as Congress shall hereafter prescribe would be better than eking this vast sum out of the people living along the line of these roads. Such use of the money would give a better return than any amount we may ultimately collect. It would yield more money to the Government in the way of taxable property, and furnish that region with roads and cheap transportation.

The legislation of Congress since the construction of the road has not followed the spirit of the original act. That act provided that when the net proceeds of the road exceeded 10 per cent. of cost of construction Congress might reduce fares and freights. During all this agitation there has never been any effort made to reduce fares and freights, or to ascertain whether Congress might do it; but there has been every effort made to further incumber the roads. The legislation has been in that direction.

The Thurman act

WAS THE MOST HOSTILE MEASURE

to the people living along the road that could have been devised. It was not in the interest of the people nor of the Government. Under it there has been invested for these railroads in bonds \$4,108,621.17, the price of the bonds at the time the investment was made. That is the cost of the bonds which were purchased. It was the market price at the time they were purchased. The market value of these bonds now is \$3,820,902.50, a decrease in the value of the bonds by nearing the hour of maturity of \$287,759.17, making a loss to the company of something like \$969,621.17.

Nobody has been benefited by the shrinking investment of the sinking fund provided by this act. It simply has increased the obligations of the company and made it more difficult for it to meet them.

There is no greater evil than to have a railroad running through a country which nobody has an interest in. If the Government is going to lay such burdens upon the Pacific railroads that nobody has any interest to take care of them and nobody can build branch roads and keep along with the times, it is a very bad thing to have such a road in a State.

What we want is more branch roads, and we want those branch roads free from incumbrances, and we want Congress to make terms as to the rates of fares and freight so that we can have cheap service. That is what Nevada wants. That is what every one of the Territories wants. That is the legislation that ought to be had.

The idea of collecting this debt from the roads never entered into the head of any member of the Congress that passed the act otherwise than by services to be rendered by the roads to the Government. The only provision in the original act of 1862 for reimbursement was five per cent. of the net earnings and the amount of transportation and telegraphing to be performed for the Government. This was to be deducted from the principal and interest, and it was shown by various parties that this provision would not only pay the interest, but it would pay the debt and redeem the bonds long before maturity.

Many inquiries were made during the debate as to how the bonds would be paid. The answer invariably was that the

BONDS WOULD BE PAID IN GOVERNMENT SERVICE,

and the bill so provided.

The act of 1862 was not liberal enough in terms to secure the construction of the road. The Central Pacific, however, undertook it and built a short piece of road near Sacramento. The Union Pacific did not undertake it at all. They had organized, but did not undertake the work. In 1864 the act was amended and much more liberal provisions were inserted. It was provided that these roads might make a first mortgage equal to the bonds issued by the Government. According to the original act bonds were to be issued as each forty miles of road was completed. This was changed so that bonds were issued as each section of twenty miles was completed. It was provided also that instead of the Government retaining all of the earnings of the roads for Government service only one-half should be retained; and it was contended then that one-half of the freight and other Government service would pay the bonds before they were due. But Congress in all these acts insisted upon the Government service being done by the transportation of munitions of war and all other Government supplies. That was not changed in the later act, but it was required; and in the act of 1864 the Government agreed to retain only half of the compensation due the roads for Government service. Under this changed contract the road was constructed.

To show that it was not anticipated that this debt should be paid by the local traffic on the roads I shall read some extracts from the debate. I want it paid as much as any one, but I want it paid in such a manner as to

DEVELOP THE COUNTRY

and answer the original purpose. I do not want it paid alone by my State or by the other localities through which the road runs, for it cannot be paid in that way. If you increase the obligations of the road no branches will be built, the freights cannot be reduced, and the people of my State will continue to suffer. On the contrary, if the indebtedness of the Central Pacific to the Government, which now amounts in round numbers to about \$50,000,000, is expended in building branch lines to be approved by the Government, in constructing reservoirs and other works for irrigation along those branch lines, so that people can live there and there will be some business to sustain them—if that is done a great good will be accomplished.

I am not in favor of appropriating money from the Treasury to go into any

EXTRAVAGANT SCHEMES OF DEVELOPMENT

of that new country, but this is exceptional. The money has been loaned by the Government for a great national purpose. It never was expected to be returned in any way except in Government service. It has not been so returned, but it has saved the Government all that was expected in giving it good mail facilities and cheapening transportation. It has saved more than the debt over and over again.

That having been done and there being an obligation on the part of these roads, as we assume, to pay the whole of this debt, both companies appear willing to do it, but they are not the only parties interested. A vast country between the Missouri River and San Francisco is interested. Its prosperity is involved in it, its development is dependent upon the correct policy to be pursued.

If this indebtedness is paid by requiring the companies to pay every dollar and put it into new roads that are freed from incumbrances, and into irrigation works, to furnish business for the roads they will be strong enough to pay it, because

as the population increases there will be somebody there to bear the burden, and in that way we will be sure to get the debt paid. There will be no defalcation if you let our enterprising people have a place to make homes and develop our mines and agricultural resources; the burdens will then be easily borne. The road can pay this debt to the Government in a way that will add more to the resources of the country and relieve the people more of taxation generally than any scheme of collecting it in long bonds. We should hardly feel the little dribbles that would go into the Treasury in that way, besides every dollar exacted from the people

WOULD TEND TO DEPRESS BUSINESS

in that country.

As I said before, the railroad land grants and these money subsidies directly secured the construction, in round numbers, of 20,000 miles of railroad, and indirectly of as much more, according to the estimates of the statisticians and persons engaged in collecting the facts upon the subject. That is the accomplishment of a great deal, and it only involved an expenditure of \$55,000,000 on the part of the United States and the donation of land otherwise inaccessible.

England, in dealing with India, found a similar problem to what we have, and that government solved it by direct appropriation, or by Indian bonds indorsed by the Government of Great Britain. They have spent during the last thirty years about one thousand millions of dollars in railroads, irrigation works, and other internal improvements, and they report that so far from burdening the treasury it has relieved the treasury several millions each year, besides the great prosperity it has given that country.

We are not in a condition to conduct business as they do. We have no strong despotic government to do that, but we have made a little experiment in investments similar to those made in India. It is true the investment we have made is small, but the returns have been most satisfactory. Our Government appears to have lost sight of the

REAL OBJECTS AND PURPOSES

for which the money was expended, for whose benefit it was expended, and how payment was to be made, and Congress now is trying to collect the money from the people along this particular line without regard to the injury which such a course must inflict.

I will read a paragraph from the "Finances and Public Works of India, 1869-1881." They have continued since 1881 quite as vigorously as before in expenditures, particularly with regard to expenditures for irrigation. The extract that I wish to read is as follows:

The magnitude of the work that has been accomplished is extraordinary. The England of Queen Anne was hardly more different from the England of to day than the India of Lord Ellenborough from the India of Lord Ripon. The country has been covered with roads, her almost impassable rivers have been bridged, 9,000 miles of railway and 20,000 miles of telegraph lines have been constructed, 8,000,000 acres of land have been irrigated, and we have spent on these works, in little more than 20 years, some £150,000,000.

That is about \$750,000,000. In this work also they estimate that the railroads to be constructed will amount to 20,000 miles, and the amount of land to be irrigated to many millions of acres. When they first proposed

TO REVIVE THE OLD IRRIGATION WORKS

and construct new ones to stop famines in India they had an estimate made. The

first estimate was \$115,000,000. They have expended much more than that already and they are going on with the work, and they report that it has improved the revenue and that the income is much greater than the interest on the outlay. The scheme is entirely satisfactory from the reports that they make from year to year.

It will not be necessary for the United States to expend like sums of money to redeem the 1,200,000 square miles of arid land of our country, which is as good as India, and exceeds British India in area about one-third. British India has 800,000 square miles and sustains a population of over two hundred millions. It is not expected that our Government will imitate in all respects the example of Great Britain in India, but this money having already been expended for a great national purpose, it seems to me that it would be reasonable to use the indebtedness of the companies in such a manner that it will not only carry out the great purpose for which it was originally designed, but develop the country through which these roads pass. I told my constituents that on the railroad question I would do that which I thought would be

FOR THE GOOD OF MY STATE

and the people generally, and I will be governed by those rules throughout. I shall not be moved by clamor against or partiality for the railroads, for I think that they are in a position where they can pay this money in the way I have indicated in my resolution of instructions to the committee.

For the purpose of showing that we are attempting now to realize a different consideration from what was anticipated by either party at the time this contract was entered into, I will read a few extracts from speeches that were made when the bill was under consideration in the two Houses of Congress. Mr. Campbell, in the House of Representatives, April 2, 1862, in discussing the question said :

In a recent imminent peril of a collision with a naval and commercial rival, one that bears us no love, we ran the risk of losing, at least for a time, our golden possessions on the Pacific for want of proper land transportation.

Mr. Stevens, of Pennsylvania, in the same debate said :

In case of war with a foreign maritime power the travel by the Gulf and Isthmus of Panama would be impracticable. And such European power could throw troops and supplies into California much quicker than we could by the present overland route. The enormous cost of supplying our army in Utah may teach us that the whole wealth of the nation would not enable us to supply a large army on the Pacific coast. Our Western States must fall a prey to the enemy without a speedy way of transporting our troops.

Mr. Wilson, of Massachusetts, when the bill was pending in the Senate, said :

I have little confidence in the estimates made by Senators or Members of the House of Representatives as to the great profits which are to be made and the immense business to be done by this road. I give no grudging vote in giving away either money or land. I would sink \$100,000,000 to build the road, and do it most cheerfully, and think I had done a great thing for my country if I could bring it about. What are seventy-five or a hundred millions in opening a railroad across the central regions of this continent, which will connect the people of the Pacific and the Atlantic and bind them together?

Again he said during the same debate :

As to the security—

And I want to call particular attention to this—

As to the security the United States takes on this road, I would not give the

paper it is written on for the whole of it. I do not suppose it is ever to come back in any form except in doing on the road the business we need, carrying our mails and munitions of war. In my judgment we ought not to vote for the bill with the expectation or with the understanding that the money which we advance for this road is ever to come back into the Treasury of the United States. I vote for the bill with the expectation that all we get out of the road, and I think that is a great deal, will be the mail carrying and the carrying of munitions of war and such things as the Government needs, and I vote for it cheerfully with that view. I do not expect any of our money back. I believe no man can examine the subject and believe that it will come back in any other way than is provided for in this bill; and that provision is for the carrying of the mails and doing certain other work for the Government.

Mr. Clark, of New Hampshire, expressed his views upon this question and how he understood the effect of the bill, as follows :

The Senator from Massachusetts may be entirely right, that the Government may never receive back this money again; and it may be that we make the loan for the purpose of receiving the services. But it will be well to take a mortgage, to secure the building of the road through, and then to secure the performance of those services which we expect them to perform in the transmission of mails and munitions of war after the road is built. I think we had better adopt the amendment of the committee. It will make it safer for the Government: safer in this regard, that we shall have the road built and have the service performed.

Mr. Clark further remarked :

Whether I am right or not, I do not build the road because I think it is to be a paying road. I build it as a political necessity, to bind the country together and hold it together; and I do not care whether it is to pay or not. Here is the money of the Government to build it with. I want to hold a portion of the money until we get through, and then let them have it all.

He did not care whether it was to pay or not; we were going to have these other advantages. And now it is not proposed to have this debt paid by Government service, but to make the people who live on the line of the road pay it. The company is willing to pay it if we give them time enough, no matter what the consequences may be.

Mr. Ten Eyck, of New Jersey, expressed himself in this wise :

The great object of the Pacific railroad bill is to have a national means of communication across the continent. That is the idea which the public have entertained for years past, and the only idea; a great national measure to cement the Union, to bind with a belt of iron the Atlantic and Pacific. * * * This is the inducement which the old States have in doing what they believe will be for the benefit of the common country, to the prejudice of the Treasury, so to speak, yet the general returns may be beneficial in the long run.

Is it not manifest that it was not anticipated that the local business along this road should pay all this debt? It was supposed that there would be through business and Government service. The local business was hardly considered. But contrary to expectation the through business is divided up among rival roads, also aided by the Government. The Northern Pacific, the Atlantic and Pacific, and now the Canadian Pacific, come in, dividing up the through business and bringing it down to the lowest possible point, so that there is little profit in it, and the payment of the debt, if paid at all, has to come out of the local business.

I do not complain of the policy which subsidized the other lines. The Northern Pacific land subsidy was

WORTH TWICE AS MUCH AS ALL THE SUBSIDIES

given to the Central and Union roads, including bonds and land. I do not object to that. It has built up the country and made States that we are about to admit into the Union. Dakota, Montana, and Washington are coming into the Union without a dissenting voice. It has created four great States. I advocated the subsidy for the Northern Pacific; but the direct effect of it was to draw its share of the business away from the other subsidized lines and throw the burden of paying this debt upon the people, which they can not bear.

The Union Pacific is better situated than the Central. It passes through a great deal of good country. But if you load the debt on the Union Pacific I predict that it will be a failing institution; that it can not compete with its rivals; that it will be impoverished; and carrying this load is going to be a tax and a burden upon the people living along that line that they ought not to bear.

The Central Pacific has no resources other than its line in Nevada and California. It is without branches in Nevada. The construction of the Central Pacific road was vastly more expensive than the Union. It was regarded almost as impossible. Most engineers thought it was a wild scheme to attempt to build it at all.

Loaded with this great debt, any scheme to collect it without allowing the money to be used for

THE DEVELOPMENT OF THE COUNTRY

is an unequal and unfair distribution of the burdens of this Government, and was never anticipated when the law was passed.

Here is what Mr. Collamer, of Vermont, said. A clearer-headed man never was in the Senate. He was a fair-minded, judicial man. He was here when I first came to the Senate, and I learned to reverence him for his wisdom and candor and fair-mindedness. Mr. Collamer said in the course of this debate on the passage of the first bill:

This bill carries the idea, and in this section provides for the repayment of the loan, as gentlemen call it. In a subsequent section it is provided that the payment shall be made in the carrying of the mail, supplies, and military stores for the Government at fair prices, and also 5 per cent. of the net proceeds or sums to be set apart for the Government. That is all the provision there is in the bill for repayment.

Mr. Latham, of California, then remarked:

The loan of the public credit at 6 per cent. for thirty years for sixty-five millions—

That was within the estimated cost. It turned out to be ten million less than was actually used—

with absolute security by lien, with stipulations by sinking fund from profits for the liquidation of the principal, official reports and other authoritative data, show that the average annual cost, even in times of peace, in transportation of troops, with munitions of war, subsistence and quartermaster supplies, may be set down as \$7,300,000. The interest upon the credit loan of \$65,000,000 will be annually \$3,900,000, leaving a net excess of \$3,400,000 over the present cost, appealing with great force to the economy of the measure, and showing, beyond cavil or controversy, that the Government will not have a dime to pay on account of its credit, nor risk a dollar by authorizing the construction of this work.

It was costing them over \$7,000,000. I investigated that afterwards and made a report in which I showed how this expense came. Subsequently the service performed by the roads for the Government was ten times greater than what was formerly required, but the amount paid has been merely nominal. It has been performed at the same rates charged on Eastern roads. Besides, much of the Government business, and perhaps the larger part, has been diverted from this road to other continental roads, including the Canadian road.

The amount paid to the subsidized roads for the Government service has been a mere bagatelle. It has done very little towards keeping down the interest, much less paying the principal, of the bonds. The Government has saved all the money it anticipated, but it has not allowed it to the railroads. In fact, it has diverted freight from the roads and made limited allowances, so that the carrying of mails and the service done for the Government has not paid off the bonds as was anticipated. That is the reason; not because the roads did not serve as good a purpose as the most sanguine ever anticipated.

Mr. McDougal, of California, a clear-headed lawyer and a man who understood what he was saying, made the following remarks :

As I have had occasion before to remark, the Government is now paying over seven millions per annum for the services which this road is bound to perform. That is about 100 per cent. more than the maximum interest upon the entire amount of bonds that will be issued by the United States when the road is completed. The Government is to-day on a peace establishment, without any war necessity, paying for the same services 100 per cent. more than the entire interest on the amount of bonds called for by the bill. Besides that, it is provided that 5 per cent. of the net proceeds shall be paid over to the Federal Government every year. Now, let me say if this road is to be built, it is to be built not merely with the money advanced by the Government, but by money out of the pockets of private individuals. * * *

It is proposed that the Government shall advance sixty millions, or rather their bonds at thirty years, as the road is completed, in the course of a series of years; that the interest at no time can be equal to the service to be rendered by the road as it progresses; and that the Government really requires no service except a compliance on the part of the company with the contract made. It was not intended that there should be a judgment of foreclosure and a sale of this road on a failure to pay. We wish it to be distinctly understood that the bill is not framed with the intention to have a foreclosure. * * * In case they failed to perform their contract, that is another thing. That is a stipulation; that is a forfeiture, in terms of law; a very different thing from a foreclosure for the non-payment of bonds. The calculation can be simply made that at the present amount of transportation over the road, supposing the Government did no more business, that that alone would pay the interest and the principal of the bonds in less than twenty years, making it a direct piece of economy if the Government had to pay for them all. However, I am not disposed to discuss this matter. I say it was not understood that the Government was to come in as a creditor and seize the road on the non-payment of interest. It is the business of the Government to pay the interest because we furnish the transportation.

Mr. Sargent, of California, said :

When the road is fully completed and we are experiencing all the security and commercial advantages which it will afford, the annual interest will be less than four millions, and that sum will be but gradually reached year after year. The War Department has paid out, on an average, five millions per year for the last five years for transportation to the Pacific coast, and the mails cost \$1,000,000 more at their present reduced rates. The saving to the Government will be two millions a year on these items alone.

The case has been before the courts and they have reviewed these laws and stated the manifest purpose of them. In 1 Otto, 91, Mr. Justice Davis, commenting upon this contract between the roads and the Government, said:

Many of the provisions in the original act of 1862 are outside of the usual course of legislative action concerning grants to railroads, and can not be properly construed without reference to the circumstances which existed when it was passed. The war of the rebellion was in progress, and, owing to complications with England, the country had become alarmed for the safety of our Pacific possessions. The loss of them was feared, in case those complications should result in an open rupture; but, even if this fear were groundless, it was quite apparent that we were unable to furnish that degree of protection to the people occupying them which every government owes to its citizens. It is true the threatened danger was happily averted, but wisdom pointed out the necessity of making suitable provision for the future. This could be done in no better way than by the construction of a railroad across the continent. Such a road would bind together the widely separated parts of our common country and furnish a cheap and expeditious mode for the transportation of troops and supplies. If it did nothing more than afford the required protection to the Pacific States, it was felt that the Government, in the performance of an imperative duty, could not justly withhold the aid necessary to build it; and so strong and pervading was this opinion that it was by no means certain that the people would not have justified Congress if it had departed from the then settled policy of the country regarding works of internal improvement, and charged the Government itself with the direct execution of the enterprise.

This enterprise was viewed as a national undertaking for national purposes; and the public mind was directed to the end in view, rather than to the particular means of securing it. Although this road was a military necessity, there were other reasons active at the time in producing an opinion for its completion, besides the protection of an exposed frontier. There was a vast unpeopled territory lying between the Missouri and Sacramento rivers, which was practically worthless without the facilities afforded by a railroad for the transportation of persons and property. With its construction, the agricultural and mineral resources of this territory could be developed, settlements made where settlements were possible, and thereby the wealth and power of the United States largely increased; and there was also the pressing want, in time of peace even, of an improved and cheaper method for the transportation of the mails and of supplies for the Army and the Indians. It was in the presence of these facts that Congress undertook to deal with the subject of this railroad. The difficulties in the way of building it were great, and by many intelligent persons considered insurmountable. * * * Of necessity there were risks to be taken, in aiding with money or bonds an enterprise unparalleled in the history of any free people, the completion of which, if practicable at all, would require, as was supposed, twelve years; but these risks were common to both parties. Congress was obliged to assume its share and advance the bonds, or abandon the enterprise, for clearly the grant of lands, however valuable after the road was finished, could not be available as a resource for building it.

And again, Justice Miller, in the case of the United States against the Union Pacific Company, in 98 United States Reports, page 619, says:

There are many matters alleged in the bill in this case, and many points ably presented in argument which have received our careful attention, but of which we can take no special notice in this opinion. We have devoted so much space to the more important matters that we can only say that under the view which we take of the scope of the enabling statute, they furnish no ground for relief in this suit. The liberal manner in which the Government has aided this company in money and land is much urged upon us as a reason why the rights of the United States should be liberally construed. This matter is fully considered in the opinion of the court, already cited in the case of the United States *v.* The Union Pacific Railroad Company (91 U. S. 72), in which it is shown that it was a wise liberality for which the Government has received all the advantages for which it bargained,

and more than it expected. In the feeble infancy of this child of its creation, when its life and usefulness were very uncertain, the Government, fully alive to its importance, did all that it could to strengthen, to support, and to sustain it. Since it has grown to a vigorous manhood it may not have displayed the gratitude which so much care called for. If this be so, it is but another instance of the absence of human affections which is said to characterize all corporations. It must, however, be admitted that it has fulfilled the purpose of its creation and realized the hopes which were then cherished, and that the Government has found it a useful agent, enabling it to save vast sums of money in the transportation of troops, mails, and supplies, and in the use of the telegraph. A court of justice is called on to inquire, not into the balance of benefits and favors on each side of this controversy, but into the rights of the parties as established by law, as found in their contracts, as recognized by the settled principles of equity, and to decide accordingly.

Now, when it is so perfectly manifest that the whole

UNITED STATES HAS HAD THE BENEFIT

of this expenditure, which was to be paid by Government service, shall its payment be charged upon a particular locality? If this road was the only through line, if it made money out of its through business, if the Government transportation was anything near what was anticipated, this state of things would never have occurred, and Congress would not be called upon to act. They would have paid off the debt long ago. But the amount estimated to be paid for freights and Government service was not paid; it was saved and better service obtained without the expenditure of money. That having been done and the Government having received the benefit which it contracted for, that was to have the mails, etc., carried without a further expenditure of money, having got that and the debt still remains, why not allow this money to be expended, all of it, every dollar of it, in such works of internal improvement along the line of the roads so as will enable the people to build up that country? These roads are loaded down, and I predict that, if you pass this Union Pacific Railroad bill, that company will be here every session to get further relief. You will have a difficult time in collecting it.

You may ultimately drive that road into insolvency with its million of people tributary to it. It has severe competition. Instead of loading the people down in this way give them the money and let them build more branches; let them build hydraulic works in the Rocky Mountains.

There is on the eastern slope of the Rocky Mountains an arid region which is an empire of itself. It is in length nearly a thousand miles from British Columbia to Mexico and in width about 300 miles. Vast streams head in this great range of mountains with flats and places for artificial lakes. We hardly know what may be done by irrigation.

The works of

IRRIGATION FOUR THOUSAND YEARS AGO

were superior to any works constructed in modern times previous to English engineering in India during the last twenty-five years. We read of Egypt and its vast population, and we wonder at the prominent place it occupied in the world at the time of the Pharaohs. Recently English engineers have discovered a defile leading from the Nile, whether natural or artificial they can not tell, but across it there is a dyke constructed of masonry, with regulating gates, and they describe it as equal to if not surpassing any work of modern times. Below where this ends there is a basin of 250 square miles and of great depth.

Evidences all around this basin show where the ancients resided. There is a vast country below this basin, which was once irrigated and sustained a large population. The English propose to repair this work and utilize this basin, and reclaim a large part of Egypt which has been a desert for thousands of years.

This Egyptian work is pretty authentically ascertained to have been constructed eighteen hundred years before the commencement of the Christian era. By references to it by Greek writers and other evidences its age is pretty accurately ascertained.

In the little island of Ceylon we have authentic history of works of irrigation for about five hundred years before the commencement of the Christian era, and for nearly fifteen centuries every ruler of that island vied with his predecessor and tried to surpass him in irrigating works and in

MAKING LAKES TO SAVE WATER,

and they increased the population so that it rose to be between fifteen and twenty millions, and when these works were destroyed by invaders the people died and were reduced to less than 2,000,000 in number, which has been increased somewhat since the British rule, and is now about two and a half millions, and they are largely supplied with food from India.

In India there are works of very ancient origin which show the highest state of engineering. A large portion of the surface of India is covered with reservoirs and artificial lakes, which support a vast population. In Palestine, Professor Marsh tells us, that at every step you see ruins of hydraulic works, showing it had once been densely populated.

So of Persia, parts of Southern Europe, Arizona, Mexico, and South America. More than half the people of the world have always subsisted by irrigation. Perhaps more than two-thirds of the people now living pursue that practice.

We are especially benefited, especially blessed here with an area larger than any other on the globe where there is sufficient rainfall to prosecute farming without the necessity for irrigation. Between the ninety-ninth parallel of west longitude and the Atlantic Ocean the country will generally produce crops without irrigation. West of that to the Pacific Ocean it requires irrigation. There is but a narrow strip that does not require it, the northwest corner of California and those portions of Oregon and the Territory of Washington that lie west of the Cascade Mountains. The arid region has an area of more than 1,200,000 square miles, and is capable of sustaining, on any reasonable calculation, a population of 200,000,000 people, perhaps more. This railroad is in this region, and it has produced vast results. The people on their own account, without surveys by the Government, adapted to it, without laws making it convenient, have already irrigated about 6,500,000 acres.

Mr. COCKRELL. What States?

Mr. STEWART. In the United States, all the States put together. I have been examining that and had Professor Powell assist me, and I find there is an area approximating 6,500,000 acres under irrigation in the United States.

Mr. GEORGE. Is the soil of that irrigated area good?

Mr. STEWART. The best in the world. The country seems to be a barren desert, utterly worthless, where nothing but horned toads can subsist. Put water upon it and it will produce beyond anything you can comprehend. You have only seen the cultivation by rainfall.

Mr. CHANDLER. How about the sage-brush?

Mr. STEWART. Wherever you can find sage-brush you can rely upon fertile land. The land there is as productive as any other land in the United States. It is not leached to the extent that other land is. There is a combination of mineral and vegetable matter that is washed down upon it from the mountains, and irrigation, when properly conducted, fertilizes the land. The water from the mountains brings down what is called silt and fertilizing material, which is just suited to produce large crops, and land which is properly irrigated from running streams will produce crops for thousands of years without any other fertilizer. The valley of the Nile, that has been cultivated, according to history, more than four thousand years, is as rich to-day as it was when first cultivated. Irrigation renews and refreshes it; and there is no end to the fertility of our arid lands if they can be properly irrigated. Irrigated land will produce such enormous crops and so continuously that I would hardly dare tell what I have seen, because I do not want to entirely lose my reputation for veracity on this floor.

Now, we have this great field. It is barren, and it is the common fate of man to be at war with the desert. The desert has driven him back and he has subdued the desert in turn, and the whole history of man from his first attempt to cultivate the soil has been a struggle with the desert. The people of the United States have not until now been brought face to face with this problem, because, as I said before, we occupy the largest area of land suitable for cultivation without irrigation in the world. There is no other section on this habitable globe equal in extent to the land in the United States which can be cultivated without irrigation; but mankind first chose the deserts. The deserts were easier to cultivate, easier to subdue than the forests. The region from the Atlantic to the line of the prairies on the the West—say to Indiana, about that longitude—that region all through the Atlantic and in the South which is heavily timbered was much more difficult to reclaim than this desert, as we call it. Those timbered regions required a greater expenditure of labor, of toil, and of time, and are a great deal more difficult to reclaim than the arid regions.

If California had been first settled the

IMMIGRATION WOULD HAVE SPREAD

over the desert; it would have been occupied at once, and the Atlantic coast would have been untouched. The chance we have for the settler in the West is better if we can appreciate it and enable him to appreciate it. It is as great a heritage as we had for him in the prairie, for 40 acres of land properly irrigated anywhere in the arid region will support a family as well as 160 acres in a region cultivated by rainfall. On land cultivated by rainfall you must constantly use fertilizers. Fertilizers do not hurt any land, but they can be dispensed with to a greater extent where you irrigate.

Now, I want Congress to take this subject up deliberately and see whether it is proposed to collect the debt from my State when nobody ever expected that it should pay it, when no member of Congress when the contract was made ever expected that my people would be called on to pay this debt. The only provision was, as I have before stated, that it should be paid in freights and fares in the Government service. As it has not been so paid I want an equitable view of this question to be taken. The amount expended is small compared with the expenditures of Great Britain. It will not be necessary to make large expenditures to

reclaim our arid lands. The use of the Pacific Railroad indebtedness and proper surveys and land laws will go far towards accomplishing the work without large appropriations, because our people understand

THE PRINCIPLE OF CO-OPERATION,

and they can do a great deal if they have the proper surveys and railroad facilities in that country. They can, as a rule, construct these works, if you make the law so that it is possible to comply with it. The principle of co-operation has been developed in that country beyond the comprehension of ordinary men. I have seen the Feather River, a river larger than the Potomac, carried in a flume miles in length, the whole work having been done by young men associating themselves together without a dollar of capital but what they dug from day to day out of the gravel and the sand. The water would not be low enough so that it could be carried in flumes until about the 1st of July, and they would have to stop on the 1st of October, giving only three months' time for mining the bed of the stream, the water of which was carried in flumes along the banks and over the heads of the miners working the gravel beneath.

There is not money enough in the Bank of England or in the Treasury of the United States to hire that done by men in the short season of low water.

Nothing but vigorous co-operation of young men with a high purpose could accomplish it. If you let me take you over that region I will show you tunnels from several hundred feet to several miles in length through hard rock, which were constructed before we had machinery, giant powder, and other means of rapid construction that we have now, but they were constructed by the hand-drill, and the men doing it simply combined, and they had not a dollar of capital when they began. Part of them would work at that and part of them would mine somewhere else, and thus they would be enabled to obtain the provisions and tools for the others, and they would go on for years and accomplish such works.

I can take you to the mountain ridges of California and show you aqueducts and canals on the very highest peaks in order to furnish water to the mines. They had to build flumes across great chasms and blast into the side of the mountains for miles and miles in order to do it. Hundreds of miles of this kind of work has been done by men thus co-operating together. They understand the principle of co-operation. I will go into the interior States and Territories where mining has been pursued, and I will show you how these people understand co-operation, and if you show them 20,000 acres or 1,000 acres of good land tell them, "Under proper regulations you may have this land if you will construct these works according to the Government's survey," making such regulations as shall not breed monopolies, providing that each man shall have his home under proper regulations—that is the question to be studied—that can be done. Let our American people be allowed to co-operate and they will accomplish more in developing this arid region than all that has been or can be done with British capital in India. But while I would not advocate the policy of expending Government money on a large scale to aid irrigation, still the mode I have suggested of diverting a part of the indebtedness of these roads to facilitate the work would be a great boon, and not only benefit the people and the Government, but would furnish business for the roads and enable them to comply with their obligations.

The people of the East can hardly credit the results which have been brought

about in conducting great enterprises in mining and other enterprises that have been conducted by co-operation. Co-operation is a great power and combined labor is capital. All the fixed capital in this country would not feed the people a year. The wealth is in labor, in the productive power of the country. Stop the production and everybody would starve at once; but what the productive power of co-operation in a country like that will make possible is immense.

Mr. BLAIR. I should like the Senator's opinion upon a project of this kind: Suppose that the Government claim should be discharged, wholly discharged, and then the mileage or fares, and perhaps freights, also, limited accordingly as in the case of the limitation of charges along the line of the New York Central Railroad, so that the country at large by diminution of charges would get the real benefit of this discharge of the debt, collecting it in that way, by a reduction of the expense of travel and transportation. Has that project ever been considered?

Mr. STEWART. I am considering a kindred project to that right now. My instructions propose to improve these roads by building long tunnels, making double tracks where necessary, and building branches with this debt so far as it goes, and to supply the branches with business, have them construct hydraulic works, to use this money for that purpose, and at the same time keep them free from debt and pass such laws as will insure cheap transportation. I have that idea embodied in the resolution of instructions I offered. Simply releasing the debt would not accomplish what I want. I do not want the debt released. I want the money used to build more roads.

Mr. BLAIR. That is to say you would continue the tax on the transportation of the entire country for the development of that locality?

Mr. STEWART. No, I would not; and I will tell you why I would not.

Mr. BLAIR. I thought that was the Senator's suggestion.

Mr. STEWART. The improvement of the main line, the construction of branch lines and irrigation works would enable the roads to furnish cheap freights and fares, and Congress should retain the power to compel them to do so.

Mr. BLAIR. May I ask the Senator a question?

Mr. STEWART. Yes, sir.

Mr. BLAIR. I should like to have the Senator explain why it is, if the road is relieved of debt or of a portion of its debt of sixty-five or seventy million dollars, it will not be able to do the business that passes over it at a lower charge than it would if it was obliged to take from that business this sixty-five or seventy million dollars to pay the debt?

Mr. STEWART. If you take off the debt and trust to them to build the roads—

Mr. BLAIR. I would suggest to the Senator before he finds fault with my construction of his plan that he understand the question I asked. My question, which I see the Senator did not understand, was how, in his judgment, it would operate upon the interests of the country and of his locality to discharge the Government debt entirely—discharge it at once, discharge it absolutely, and then let the country take its benefit by a legalized reduction of fares and freights analogous to what prevails in the case of the New York Central road?

Mr. STEWART. I admire the Senator's liberality in discharging the debt at once; but if we give up the debt what assurance have we that the branch roads will be built?

Mr. BLAIR. Then my suggestion was correct, that the Senator wishes the debt to continue in order that transportation may cost as much as or more than ever, and money thus raised, instead of being paid by the country at large, to be used in the still further development of that locality.

Mr. STEWART. The transportation will cost less, of course, if they have branch roads. They have got little business of any kind along there, and they are compelled to charge for what little they do about all there is in it to carry it.

Mr. BLAIR. Is it not a fact that the through business is now the business very largely and that the present prices for fares and freights are paid by the people of the central and eastern portions of the country?

Mr. STEWART. The through business amounts to very little comparatively. It is the local business on which they must depend.

Mr. BLAIR. If there is no through business across these trans-continental routes, for what purpose were they constructed and for what use are they now? I did not fail to understand that the Senator dwelt upon the great and patriotic purpose for which this line was originally constructed. I have always understood that to be the cause of the nation's contracting this high debt or giving this system assistance. But the debt remains and the nation is undertaking—

Mr. STEWART. Let me ask the Senator a question now that he has asked me so many.

Mr. BLAIR. Will the Senator hear what I say in reference to the suggestions?

Mr. STEWART. All right.

Mr. BLAIR. I want him to understand me: I will say to him that I understand the reason why the Government became interested pecuniarily was to keep the country together, to keep it united, and that purpose has been attained, and that the public did not generally expect to collect this debt originally. It remains, and now the public having obtained its first grand purpose insists upon its money also. That money must be collected out of the fares and freights of the roads, so that it is a burden upon those who pay the fares and freights. Now, I understand that about one-half of this debt the payment of which the Government guarantied and which has got to be paid to private individuals or corporations any way, and beyond that is an additional debt of perhaps the same amount more which is due direct to the Government.

Now, I make this suggestion, and ask the Senator's view of it: whether for the general good of the road and of the country it would or would not be a good measure to discharge all that is owed to the Government directly, leaving only that which is due on the first original primary mortgage, which must be paid, and the payment of interest on the Government mortgage, as I understand, so that it must be paid anyway, but which is charged upon the Government directly, and then make a corresponding and unequalized reduction of fares and freights so that the whole country or whoever pays a passage over the road will have the benefit of it? That was the suggestion I made.

Mr. STEWART. I ask the Senator if he is in favor of that?

Mr. BLAIR. I have not thought very much about that. I asked the Senator the question. But I am inclined to think I would be in favor of that; but in my belief there are others who understand that great subject better than I do, and as a result of my belief I was questioning the Senator himself, thinking he was one of those who knew more about it than I do.

Mr. STEWART. It undoubtedly would be better to discharge the debt at once on condition of reduction of fares and freights than to enforce its payment and thereby impoverish the country through which the road passes, but my opinion is that it would be better to use the debt for the improvement of the road, the construction of branch roads and irrigation works, and also to require cheaper fares and freights.

As I before remarked, Great Britain started first to build railroads, and built them all through India. They found that the roads without irrigation were useless, and they then devised a scheme to irrigate the land so as to supply business for their railroads. They first estimated one hundred and fifteen millions for irrigation. Much more than that has already been expended, and the result has been entirely satisfactory.

In the railroads and in the works of irrigation they constructed they spent a thousand millions in round numbers, and they increased very much the revenues of India. I do not propose appropriations by this Government on any such scale, but I claim that it is wrong to tax a portion of the arid region to pay for a great national enterprise, in which the whole country is interested, and oppress the people and prevent its development. But inasmuch as the Government has received its consideration I say use every dollar of this money for public improvements in that country under such regulations as Congress may hereafter prescribe. In that way we shall have carried out the original design of the act and at the same time develop the interior of the country, and the resulting benefit to the United States will be immense.

About 300 miles of the Central Pacific Railroad is in

THE VALLEY OF THE HUMBOLDT,

in Nevada. This valley, before any portion of it was irrigated, was the most forbidding in appearance of any section of the overland line. A small part of it has been irrigated and it has proven to be equal in fertility to any land in the United States. There is sufficient water running to waste in the Humboldt River and its branches to irrigate this entire valley. If this water were stored and conducted over the land by proper hydraulic works during the irrigating season at least 4,000,000 acres of land could be reclaimed in this valley alone. The irrigated land would be worth at least \$50 an acre and would support a population of more than 300,000. The entire farm area of Massachusetts, according to the Tenth Census, is not equal in extent to the land susceptible of irrigation in the Humboldt Valley alone.

A few millions of

THE DEBT OF THE CENTRAL PACIFIC,

if used in works of irrigation for this valley, would create wealth and support a population sufficient to contribute annually to the revenues of the United States more money than could be collected from the company by any funding bill that could be devised. The Central Pacific Railroad, as before stated, occupies this valley. There is no inducement for a parallel road; and in many places the road occupies the sites which will ultimately have to be used for reservoirs, etc., and the road-bed must be changed before the valley can be reclaimed. If the Government insists upon the payment of the debt without any portion of it being expended for the development of the country or the improvement of the road the road will remain where it is, and the greater portion of this valley will also

remain a desert. Congress can remedy all this by requiring the company to change its road-bed and expend a portion of the money due the Government for that purpose, and also for the construction of the necessary hydraulic works. The Central Pacific Railroad also passes through the valley of the Truckee River, the outlet of Tahoe, Donner, and other lakes. Here again is a vast area of several hundred thousand acres of land that can be easily reclaimed by storing the flood-water in the mountain lakes and distributing it by canals on the fertile lands below.

Nevada has numerous other

FERTILE VALLEYS SUSCEPTIBLE OF IRRIGATION

which will supply business for this road and branches to be constructed from it. If the policy I indicate could be pursued Nevada in a very few years would be a wealthy and populous State, and the revenues she would pay to the Government would far exceed the amount of money that can be collected by the proposed funding of the debts of all the aided roads combined. To make this central continental road capable of doing the business of the country cheaply and expeditiously tunnels are necessary to be constructed to avoid the heavy grades and deep-snow line in the Sierra Nevada Mountains, where over 30 miles of snow-sheds are now maintained. These tunnels have been surveyed, and in the aggregate will be several miles in length. It is entirely practicable to enter the mountains below the deep-snow line on the east side and avoid the deep snow on the west side of the summit of the mountains by following along the sunny slope which forms the northern bank of the North Fork of the American River.

By these tunnels about 1,100 feet of altitude would be avoided, the snow-sheds dispensed with, the cost of operating the road greatly reduced, much time saved, and travel made more comfortable and safe. A portion of the debt ought certainly to be used for this much-needed improvement, and unless this is done these tunnels will never be constructed and the interior will be deprived of cheap freights, travel and mails delayed, and Government transportation, particularly in time of war, greatly embarrassed. Before any bill is passed adjusting or funding

THE DEBTS OF THESE ROADS

it seems to me that the committee charged with that subject should make a personal examination of the country through which the roads pass to enable them to devise some scheme whereby these roads may be a benefit to the country and not an insuperable obstacle to its development.

ADDENDA.

The Union Pacific Funding bill was subsequently recommitted to the committee, and the Senate adopted the following resolution introduced by Mr. Stewart :

That the select committee appointed under the resolution of the Senate of January 24, 1888, to which was referred the President's message, transmitting the report of the Pacific Railway Commission, be, and it is hereby, continued, with all the power and authority on it conferred by Senate resolution of February 23, 1888, until the indebtedness of the Union Pacific Railroad Company, the Kansas Pacific Railway Company, the Central Branch Union Pacific Railroad Company, and the Central Pacific Railroad Company as the successor to the Central Pacific Railroad Company of California, and the Western Pacific Rail-



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road Company, to which the subsidy bonds of the United States were advanced in aid of the construction of the roads of said companies, shall be adjusted by Congress. And said committee is hereby instructed to personally examine, during any recess of Congress preceding the meeting thereof in December next, the roads of said companies and the country through which they pass or which is immediately contributory to their income, for the purpose of ascertaining the ability of said companies to pay their indebtedness to the Government, and how the indebtedness of said companies can be so adjusted and paid as to advance the development of the country through which said roads pass, and afford to the inhabitants thereof reasonable rates of transportation for passengers and freight. Said committee may hold its sessions at any place in the United States, and the expenses attending its investigation shall be paid out of the contingent fund of the Senate.

Any subcommittee appointed by said committee shall have all the powers of the full committee.